UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

FINJAN LLC,

Plaintiff,

v.

PALO ALTO NETWORKS, INC.,

Defendant.

Case No. 14-cv-04908-RS

ORDER GRANTING MOTION FOR SUMMARY JUDGMENT

I. INTRODUCTION

Plaintiff Finjan, LLC, holds patents that generally relate to protecting computers and/or mobile devices from malicious software. Finjan filed this action in 2014, alleging infringement by defendant Palo Alto Networks, Inc. ("PAN") of ten patents. By the time the case was transferred to the undersigned last year, only four patents remained in suit. Following a claim construction order, the parties stipulated to non-infringement of one patent, as construed. PAN now seeks summary judgment of non-infringement as to the remaining three patents. For the reasons discussed below, the motion will be granted.

II. BACKGROUND

Malicious software—or "malware"—such as viruses, worms, and "Trojans," became an increasing problem for computer users with the development in the mid-1990s of "mobile code." Before then, computer viruses typically spread by infected floppy disks or other removable media.

As usage of the internet was becoming more widespread, Sun Microsystems released the Java programming language, which gave developers the means to build platform-independent applications that could run on any computer or device, regardless of the underlying operating system or hardware architecture. Java's ability to run code on a remote system—"mobile code"—however, also facilitated the spread of malware. Finjan's patents disclose "methods and systems" designed to prevent such malware from infecting a user's computers.

The products and services offered by PAN that are alleged to infringe the patents are (1) PAN's Next Generation Firewall ("NGFW") and associated subscription services such as Threat Prevention and URL Filtering; (2) WildFire, including both WildFire's Public Cloud and the WF-500, an optional appliance for customers who choose to deploy WildFire on a private cloud; and (3) PAN's endpoint protection product Traps (also known as "Cortex XDR"). According to PAN, NGFW is a gateway that parses network traffic coming into an enterprise intranet to identify and block malicious content. NGFW analyzes incoming "packets" of network traffic without regard to file type or programming language using a so-called "single pass architecture." NGFW compares packet information to an enterprise's security policy and attempts to identify and block potentially malicious traffic.

WildFire is a cloud-based threat analysis system that identifies malicious content and generates signatures, *i.e.*, strings of numbers or characters used to identify a unique file. WildFire has both "static" and "dynamic" analyses. Static analysis looks for known indicators of a file being either benign or malicious and generates a "signature" if it can make that determination. If it cannot, then the file is "dynamically" analyzed, *i.e.*, placed in the WildFire "virtual machine" that executes the file and records its behaviors. These behaviors are stored in a log that is made available to WildFire subscribers. Traps runs on an end-user's computer and is integrated with Wildfire to identify and block malicious content.

III. LEGAL STANDARD

Summary judgment is proper "if the pleadings and admissions on file, together with the

affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c). The purpose of summary judgment "is to isolate and dispose of factually unsupported claims or defenses." *Celotex v. Catrett*, 477 U.S. 317, 323-24 (1986). The moving party "always bears the initial responsibility of informing the district court of the basis for its motion, and identifying those portions of the pleadings and admissions on file, together with the affidavits, if any, which it believes demonstrate the absence of a genuine issue of material fact." *Id*. at 323 (citations and internal quotation marks omitted). If it meets this burden, the moving party is then entitled to judgment as a matter of law when the non-moving party fails to make a sufficient showing on an essential element of the case with respect to which he bears the burden of proof at trial. *Id*. at 322-23. The non-moving party "must set forth specific facts showing that there is a genuine issue for trial." Fed. R. Civ. P. 56(e). The non-moving party cannot defeat the moving party's properly supported motion for summary judgment simply by alleging some factual dispute between the parties.

To preclude the entry of summary judgment, the non-moving party must bring forth material facts, *i.e*., "facts that might affect the outcome of the suit under the governing law . . . . Factual disputes that are irrelevant or unnecessary will not be counted." *Anderson v. Liberty Lobby, Inc*., 477 U.S. 242, 247-48 (1986). The opposing party "must do more than simply show that there is some metaphysical doubt as to the material facts." *Matsushita Elec. Indus. Co. v. Zenith Radio*, 475 U.S. 574, 588 (1986). The court must draw all reasonable inferences in favor of the non-moving party, including questions of credibility and of the weight to be accorded particular evidence. *Masson v. New Yorker Magazine*, Inc., 501 U.S. 496 (1991) (citing Anderson, 477 U.S. at 255); *Matsushita*, 475 U.S. at 588 (1986). It is the court's responsibility "to determine whether the 'specific facts' set forth by the nonmoving party, coupled with undisputed background or contextual facts, are such that a rational or reasonable jury might return a verdict in its favor based on that evidence." *T.W. Elec. Service v. Pacific Elec. Contractors*, 809 F.2d 626, 631 (9th Cir. 1987). "[S]ummary judgment will not lie if the dispute about a material fact is 'genuine,' that is, if the evidence is such that a reasonable jury could return a verdict for the nonmoving party."

Anderson, 477 U.S. at 248. However, "[w]here the record taken as a whole could not lead a rational trier of fact to find for the non-moving party, there is no 'genuine issue for trial.'" *Matsushita*, 475 U.S. at 587.

Evaluating infringement in patent cases is a two-part inquiry: 1) claim construction; and 2) comparison of the properly construed claims to the accused product. *Lockheed Martin Corp. v. Space Sys./Loral, Inc.*, 324 F.3d 1308, 1318 (Fed. Cir. 2003). Here, claim construction is complete, and the remaining task is to compare the asserted claims to the accused PAN products. "[A] determination of infringement, both literal and under the doctrine of equivalents, is a question of fact." *Id*. Because the ultimate burden of proving infringement rests with the patentee, however, an accused infringer may show that summary judgment of non-infringement is proper either by producing evidence that would preclude a finding of infringement, or by showing that the evidence in the record fails to create a material factual dispute as to any essential element of the patentee's case. *See Novartis Corp. v. Ben Venue Labs., Inc.*, 271 F.3d 1043, 1046 (Fed. Cir. 2001).

IV. DISCUSSION

A. U.S. Patent No. 8,225,408

The '408 Patent is entitled "Method and system for adaptive rule-based content scanners." It provides a technique for scanning incoming content, under different programming languages, to analyze potential exploits (e.g., malicious portions of code) within the content.

Finjan alleges infringement of independent Claim 1, several claims depending from Claim 1, and independent claim 22. Claim 1 is a method claim that describes using a computer processor to scan incoming program code for any "exploits," *i.e.*, malware. Claim 22 appears to be a so-called "*Beauregard* claim," *see In re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995)—*i.e.*, it covers software programs encoded on tangible computer-readable media. The program described in Claim 22 is one that performs all the same steps set out in the method of Claim 1. Thus, all of PAN's non-infringement arguments rise or fall with the analysis of whether its accused products

read on Claim 1.

In relevant part, Claim 1 claims:

A computer processor-based multi-lingual method for scanning incoming program code, comprising:

(a) receiving, by a computer, an incoming stream of program code;
(b) determining, by the computer, any specific one of a plurality of programming languages in which the incoming stream is written;
(c) instantiating, by the computer, a scanner for the specific programming language, in response to said determining . . . .[1]

Finjan contends the '408 patent is infringed by NGFW (alone or in combination with WildFire, Threat Prevention, or Traps) and by WildFire (alone or in combination with Traps). PAN argues Finjan cannot establish infringement because neither NGFW nor Wildfire meet certain claim limitations. There appears to be no dispute that *if* NGFW and Wildfire do not meet the specific limitations addressed in this motion, combining them with each other and/or with Threat Prevention and/or Traps will not give rise to infringement—in other words, even though Finjan may rely on the combinations to buttress its infringement claims on certain other issues, it does not suggest the combinations can supply the elements PAN is trying to show are missing in NGFW and Wildfire standing alone. The issue for this motion, therefore, is only whether NGFW or Wildfire meet the claim limitations raised by PAN.

NGFW

PAN contends its NGFW product contains only one "scanner," which is capable of handling different languages, and that Finjan's expert, Dr. Paul Min, conceded the point in his deposition testimony. As a result, PAN argues, NGFW does not satisfy the "instantiating" limitation.[2] As noted above, step (c) of Claim 1 calls for "instantiating . . . a scanner *for the*

[1] The (a) – (c) letter designations of the steps do not appear in the patent itself, and have been added for ease of reference.

[2] The parties did not ask for construction of the word "instantiating." Although the word is not common, the parties appear to agree it has no special meaning in the patent, and can be understood as calling up, creating, or bringing about an instance of something—such as calling up a scanner

specific programming language" that has been determined in step (b) to be the language used in the incoming stream of program code. Because NGFW uses the same scanner regardless of the programming language in the incoming stream, it cannot be said to "instantiate a scanner for the specific programming language."

At deposition, Dr. Min identified "the scanner" of NGFW as consisting of its "CID engine" and an element called "App-ID." Furthermore, Dr. Min confirmed this was the only "scanner" on which he relied:

> Q. Did you rely on any scanner other than the scanner you identified in Exhibit 38 to support your infringement contentions for NGFW?
>
> A. No.

Min Dep. Tr. at 508:25-509:3.

Dr. Min also conceded this scanner handles multiple programming languages:

> Q. . . . Can the NGFW scanner that you've identified handle multiple different programming languages?
>
> A. Yes.

Id. at 509:4-7.

Finjan insists Dr. Min's identification of a single scanner does not undermine its position that NGFW operates in a manner that satisfies the claim language. Finjan asserts Dr. Min was only doing the best he could to show at "a high level" where a scanner was represented on the particular document defense counsel had put in front of him. As Finjan points out, Dr. Min's expert report includes detailed citations to source code showing where NGFW includes functions to address specific programming languages. Finjan also observes the patent specification specifically contemplates an "adaptive rule-based scanner," described as one which "is able to adapt itself dynamically to scan a specific type of content, such as inter alia JavaScript, VBScript, URI, URL

---

to be used for the next step of the method.

and HTML" and which thereby differs "from prior art scanners that are hard-coded for one particular type of content." Finjan contends NGFW effectively approaches scanning of different languages in the same manner as described in the patent.

Finjan's arguments fail because the functions it points to for addressing a variety of programming languages all appear *within* the NGFW scanner. As PAN points out, even if NGFW could be seen as "instantiating" language-specific scanners for each language, there is no basis to conclude NGFW "determine[s] . . . any specific one of a plurality of programming languages" before instantiating the appropriate scanner. Again, Dr. Min identified the modules that determine the programming languages as part of the CID engine that he contends *is* the scanner (in combination with App-ID). Because the programming language is determined by the scanner itself, it does not satisfy the claim language, which calls for *first* determining the language (step (b)), and *then* instantiating a language-specific scanner *in response* to that determination (step (c)).

WildFire

PAN's non-infringement arguments as to WildFire substantially follow its arguments about NGFW. Dr. Min again identified a single scanner in WildFire, consisting of elements referred to as "static analysis" and "dynamic analysis." Dr. Min again testified that this was the only "scanner" on which he relied:

> Q. So you've identified in Exhibit 43 the only scanner that you rely on in forming opinions about WildFire?
>
> A. Yes. What is identified in Exhibit 43 is the scanner that I -- I identified.
>
> Q. Okay. And you identified both parts of the scanner, right?
>
> A. Yes.

Min Dep. Tr. at 524:5-12.

Dr. Min again also conceded the WildFire scanner handles multiple different programming languages:

> Q. And so the – the WildFire scanner you've identified can accommodate

multiple different programming languages, true?

A. Yes.

Id. at 524:23-525:1.

Accordingly, WildFire does not satisfy the instantiating and determining limitations either. PAN argues WildFire does not infringe for the additional reason that it only determines file *type* of the incoming stream, and not the program language before instantiating the scanner. Finjan insists Wildfire determines file type only as one part of the process by which it ultimately determines program language. Even if that is so, the infringement claim fails because determining the language only happens after the scanner has been called.

B. U.S. Patent No. 7,647,633

The '633 Patent is entitled "Malicious mobile code runtime monitoring system and methods." It relates to executing files (such as potential malware) in a protected environment, known as a sandbox. If the file is observed performing malicious activities, it can be blocked and discarded. Finjan contends claim 14 is infringed by WildFire, alone or in combination with NGFW or Traps.

Claim 14 of the '633 Patent requires "causing mobile protection code to be executed by the mobile code executor at a downloadable-information destination." In claim construction the parties offered competing constructions for "downloadable-information destination." The construction order rejected both Finjan's request to construe it as any device capable of performing the recited functionality, and PAN's request to specify that it was limited to an "end user" device.

The construction adopted for "downloadable-information destination" is "user device that includes one or more devices or processes that are capable of receiving and initiating or otherwise hosting a mobile code execution." See Dkt. No. 290 at 10-11. At the hearing. Finjan complained the term "user device" might confuse jury members and cause them to rely on their own lay understanding of "user device," limiting it to common end-user devices like cell phones, laptops,

and tablets.

PAN dismissed Finjan's concern, arguing juror confusion was unlikely and that any ambiguity over the meaning of "user device" would be clarified by expert testimony at trial:

> MR. MOONEY: . . . On the jury confusion point, we don't believe there will be any confusion over user device. We don't believe that jurors are going to believe that iPhones are the only user devices. But of course there will be technical experts that are going to testify to assist the jury in that regard.

Hearing Transcript 45:20-24,

Now, Finjan's expert, Dr. Angelos Keromytis, points only to WildFire servers as the claimed "downloadable-information destination." Dr. Keromytis opines (1) the "mobile code executor" is Wildfire's "backend processing," specifically Wildfire's Virtual Machine/ VM. (Keromytis Rpt. ¶¶ 150-152, 201, 204, 212, 225, 437) and (2) "Virtual Machine" or "VM" means "virtual machines setup by Wildfire" that run on a Wildfire Public Cloud server or a WF-500 appliance server (*id*. ¶ 150 n. 6). Thus, according to Dr. Keromytis, the claimed "downloadable-information destination" is a WildFire Public Cloud server or a WF-500 server.

In its contentions, Finjan merely states that "WildFire is a downloadable-information destination because it is a device — a user device or otherwise — that includes one or more devices capable of receiving and initiating or otherwise hosting a mobile code execution." Dr. Keromytis makes exactly the same statement in his expert report. Keromytis Rpt. ¶ 381.

Accordingly, Dr. Keromytis never directly declares that WildFire servers are properly seen as "user devices"—he only asserts they are "a user device *or otherwise . . .*"Even if Dr. Keromytis had expressly opined that either of these servers is a "user device," however, he is on record as interpreting "user device" in a manner that would include *any* receiving device or process. The claim construction order rejected that view.

To be sure, the usage of "user device" in the '633 Patent is quite broad. For example, the patent describes a "user device" as "a receiving device or process" ('633 Patent at 3:51-62), and states "a user device [may] operat[e] as a firewall/server" ('633 Patent at 7:47-54). The fact that a

user device can perform as a firewall/server, however, does not mean that every firewall/server qualifies as a user device.

Although the claim construction order declined to construe "downloadable-information destination" as an "end user device and recognized that it may be broader than typical consumer products like phones and laptops, there is no basis to conclude cloud-based servers are "user devices." PAN's expert, Dr. Rubin, explains why WildFire cloud-based servers are not "user devices"— WildFire virtual machines are implemented as a cloud-based solution, and are not devices which provide direct user interaction. Rubin Rpt. ¶¶ 715-719.

Finjan stridently objects to taking the question away from the jury, arguing PAN expressly agreed at claim construction that any ambiguity in the term would be addressed through expert opinion. In Finjan's view, that means it must be a question of fact. Finjan's argument fails, however, because its own expert offers no supported opinion that the WildFire servers constitute "user devices" within the meaning of the claim construction order. The battle of the experts is appropriately called at the summary judgment stage when one side presents no non-conclusory expert opinion on the point.

C. U.S. Patent No. 7,418,731

The '731 Patent is entitled "Method and system for caching at secure gateways." It discloses systems and methods for scanning incoming files from the internet and deriving security profiles from those files. Finjan contends independent Claims 1, 14, and 17 (as well as dependent Claims 2 and 15) are infringed by WildFire, alone or in combination with NGFW, Traps, or NGFW and Threat Prevention.

The asserted claims of the '731 Patent all require "security profiles" comprising lists of computer commands from the scanned file to be stored in a "security profile cache." Claim 1 recites, among other things, "a scanner for scanning incoming files from the Internet and deriving *security profiles* for the incoming files, wherein each of the *security profiles* comprises a list of computer commands that a corresponding one of the incoming files is programmed to perform"

and "*a security profile cache* for storing the *security profiles* derived by the scanner." The pertinent language in Claims 14 and 17 is identical; both refer to "deriving a *security profile* for the retrieved file, the *security profile* including a list of at least one computer command that the retrieved file is programmed to perform" and "storing the *security profile* for the retrieved file within a *security profile cache* of the network gateway for future access." [3]

Finjan originally advanced two different infringement theories. First, Finjan asserted WildFire Reports (or WildFire Behavioral Reports) constituted security profiles. Second, Finjan contended AV Signatures (or signatures or threat signatures) meet the securities profiles limitation of the patent.

PAN's summary judgment motion argued the "WildFire Reports" theory fails because those reports are not stored in a "security profile cache." Finjan's opposition effectively abandons any contention that WildFire Reports are security profiles. PAN further argued "AV Signatures" cannot serve as security profiles because those signatures do not include a list of computer commands. As noted above, Claim 1 specifies that "each of the security profiles comprises a list of computer commands that a corresponding one of the incoming files is programmed to perform." Similarly, Claims 14 and 17 describe the security profile as "including a list of at least one computer command that the retrieved file is programmed to perform."

In response, Finjan insists the AV Signatures *do* include lists of computer commands, but that is not supported by its own expert's testimony. Rather, Dr. Jakobsson opines that WildFire creates *both* a behavioral report comprising a list of computer commands *and* an AV Signature. As such, AV Signatures, standing alone, do not comprise lists of computer commands.

---

[3] At claim construction, "file cache" was construed as "a memory for temporarily holding a file." PAN originally proposed also expressly construing "security profile cache." Finjan faults PAN for now, in effect, asking for construction of "security profile cache" when it previously abandoned that request. Finjan offers no real objection to treating "security profile cache" consistently with the construction of "file cache," and it otherwise appears appropriate to do so. Accordingly, "security profile cache" means "a memory for temporarily holding a security profile."

Finally, Finjan points to various "scan results" and "analysis results" that it claims are placed in temporary storage locations, thereby supposedly satisfying the limitations of "security profiles" being stored in a "security profile cache." Other than baldly asserting such "scan" and "analysis" results are "security profiles," however, Finjan and its expert offer no support for why they should be deemed as such, particularly when Finjan previously identified only WildFire Reports and AV Signatures as potentially constituting "security profiles."[4]

D. Other issues

PAN's summary judgment motion also seeks a determination that, at a minimum, Finjan cannot establish pre-suit willful infringement of the '731 patent. In response to the present motion, Finjan disclaims any intent to pursue pre-suit willful infringement. Accordingly, this prong of PAN's motion would be moot, even if the infringement claims had survived.

Finjan has also filed a motion for summary judgment seeking a finding that PAN's invalidity claims lack merit. The parties agreed that motion need not be addressed if PAN's summary judgment motion were granted, so it is also moot.

The parties' motions challenging their respective damages experts are moot, as is Finjan's motion to exclude opinions of PAN expert Dr. Aviel D. Rubin relating to the meaning of the term "information re-communicator" recited in claim 14 of the '633 Patent. As reflected by the discussion above, PAN's summary judgment motion did not implicate the term "information re-communicator."

Finally, the parties have complied with the court's request that they meet and confer regarding the many sealing motions and submit a single, narrowly tailored, proposed order. The court appreciates the diligence the parties exhibited in providing a detailed and appropriate proposed order, which will be entered in conjunction with this order.

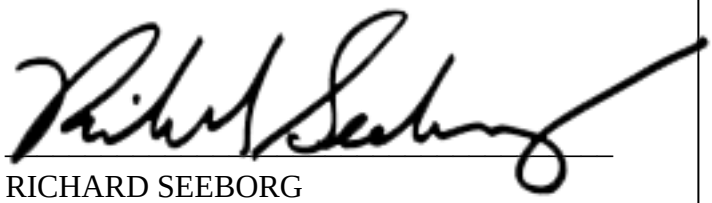
[4] Similarly, Finjan's cursory suggestion that there may be infringement under the doctrine of equivalents is too underdeveloped to give rise to a triable issue of fact.

V. CONCLUSION

Defendant's motion for summary judgment is granted. The sealing motions will be granted to the extent set forth in the separate order, and otherwise denied. All other pending motions are denied as moot. A separate judgment will be entered.

IT IS SO ORDERED.

Dated: March 21, 2025



RICHARD SEEBORG
Chief United States District Judge